

REMARKS

Objection to specification

The Examiner draws attention to the hyperlink on page 17.

In response, Applicant has amended the paragraph by deleting the hyperlink.

Applicant submits that the specification is now consistent with the guidelines set forth in MPEP 608.01 VII.

Section 103 rejection of claim 1

Bass fails to teach or suggest at least two of the limitations of claim 1. These are the steps of “publishing the common format data object” and the step of “providing a plurality of transformers, each transformer corresponding to a unique transformation.”

Applicant first draws attention to *Bass*'s omission of “publishing the common format data object.”

*Bass*¹ teaches data exchange between two publish and subscribe (“PUB/SUB”) domains using the internet. These two PUB/SUB domains, labeled “DOMAIN 1” and “DOMAIN 2” in FIG. 1, are shown at opposite ends of that figure.² Each PUB/SUB domain includes a broker 16, 17 that relays messages between publishers and subscribers. These publishers and subscribers include several process adapters 18, 19 and one channel adapter 14, 15 for each PUB/SUB domain.³

The channel adapters 14, 15 exchange messages with each other via the internet 11. The Examiner appears to regard this exchange of messages as publishing and subscribing.

However, *Bass* explicitly states that transmitting messages across the internet between two PUB/SUB domains is *not* publishing and subscribing. Specifically, *Bass* states:

¹ *Bass*, U.S. Patent No. 6,549,956.

² *Bass*, col. 3, lines 5-10.

³ *Bass*, col. 3, lines 10-16.

"Note that the terms publish and subscribe should not be used in describing the flow of control in sending an event across the system"⁴ [emphasis supplied]

The Examiner appears to regard *any data exchange whatsoever* between two computing entities as a publication by one and a subscription by the other.

Applicant agrees that the Examiner must apply the broadest reasonable meaning to both publishing and subscribing. But the proposed meaning is unreasonable because it swallows every data exchange between two computing entities. Under the proposed construction of publishing and subscribing, there is no possible way for data to be exchanged between computing entities other than by publication and subscription. The proposed construction is therefore manifestly unreasonable.

Moreover, the PTO is required to apply the broadest reasonable interpretation "consistent with the interpretation that those skilled in the art would reach."⁵

In this case, Bass himself tells one of ordinary skill in the art who reads his patent that the exchange of messages between the channel adapters 14, 15 is neither publishing nor subscribing. This is consistent with teachings throughout *Bass*. For example, *Bass* teaches:

- (1) that a receiving channel adapter receives an event and then publishes that event within its own domain,⁶
- (2) that the framework interface of FIG. 2, which is part of the channel adapter, "facilitates the publishing of events to the broker from the channel adapter and also the subscription to events from the broker;"⁷

⁴ *Bass*, col. 4, lines 43-45.

⁵ *In re Cortright*, 165 F.3d 1353 (Fed. Cir. 1999).

⁶ *Bass*, col. 4, lines 53-56.

⁷ *Bass*, col. 3, lines 56-59.

- (3) that the invention disclosed is a system “for coupling a first publication and subscription (PUB/SUB) system to a second PUB/SUB system through the internet network;”⁸ and
- (4) that publish and subscribe “is a mechanism for the distribution of information in a computer system or domain”⁹ (and hence not between PUB/SUB domains).

Applicant requests that the Examiner provide an explanation for why publishing and subscribing is to be construed in a manner inconsistent with the clear teaching of *Bass*.

Having drawn attention to *Bass*'s failure to teach or suggest the claimed publishing step, Applicant now draws attention to *Bass*'s failure to teach or suggest “providing a plurality of transformers, each transformer corresponding to a unique transformation.”

The Examiner's remarks suggest that the *Bass* channel adapter 14 is to be regarded as claim 1's “transformer.”

However, the channel adapter 14 does not correspond to a unique transformation. In particular, each channel adapter 14 features a configuration interface 28 (see FIG. 2) that allows an administrator to “select the protocols used for the interfaces and specify what events or types of events would flow through the channel adapter.”¹⁰

It therefore appears that the channel adapter 14 does not correspond “to a unique transformation.” In fact, according to *Bass*, the channel adapter 14 can be reprogrammed to incorporate many different protocols.

Skeen is cited only to disclose selecting a channel on the basis of the data object. *Skeen* fails to teach or suggest the foregoing limitations. Hence, the proposed combination of references would still fail to yield the claimed invention.

⁸ *Bass*, claim 18 preamble.

⁹ *Bass*, col. 11 lines 21-23.

¹⁰ *Bass*, col. 3 lines 65-col. 7, line 3.

Claims 2-17 all depend on claim 1 and are allowable for at least the reasons set forth above in connection with claim 1.

Section 103 rejection of claims 18 and 38

Bass fails to teach or suggest either “publishing the common format object to a communication channel” or “receiving a request from a subscribing application to subscribe to the communication channel.”

We first draw particular attention to *Bass*'s failure to teach “publishing the common format data object to a communication channel.”

The Examiner appears to regard publishing to occur when one channel adapter **14** sends a message to the other channel adapter **15** across the internet **11**. This message would be sent using TCP/IP or some other protocol. The Examiner also appears to regard an object transmitted with this protocol as being a “common format data object” because the protocol is understood by both channel adapters **14, 15**.

As noted above in connection with claim 1, *Bass* himself states that the communication between channel adapters **14, 15** is neither publishing nor subscribing. Applicant requests that the Examiner explain why it is proper to construe such communication as publishing and subscribing when *Bass* expressly states that it is neither.

The only publication carried out in *Bass* occurs when the channel adapter **14, 15** provides data to its corresponding domain specific PUB/SUB broker **16, 17**. However, the data thus published is no longer communicated using TCP/IP, which the Examiner regards as being the common format. Therefore, the data passed between the channel adapter **14, 15** and its corresponding broker **16, 17** cannot be a “common format data object.”

Having pointed out why *Bass* fails to teach “publishing the common format data object to the communication channel,” we now turn to explaining why *Bass* also fails to teach “receiving a request from a subscribing application to subscribe to the communication channel.”

The Examiner regards this as occurring when the broker 17 lists the channel adapter 15 as a subscriber. But in that case, the channel would extend between the broker 17 and the channel adapter 15, and not between the two channel adapters 14, 15.

The Examiner has already identified the "communication channel" of claim 18 with the network connection between the pair of channel adapters 14, 15. But, when channel adapter 15 subscribes to a channel, it subscribes to a channel between the broker 17 and itself. This is not the same as the network connection between the pair of channel adapters 14, 15. Having already identified the communication channel with the internet connection between the channel adapter pair, the Examiner may not now re-identify it with the channel between broker and channel adapter in the next paragraph of the claim.

It is apparent therefore that *Bass* fails to teach "receiving a request from a subscribing application to subscribe to the communication channel."

For reasons set forth above, *Bass* fails to disclose at least two of the limitations set forth in claim 18. *Skeen* fails to remedy these deficiencies in the teaching of *Bass*. Therefore, the combination of *Bass* and *Skeen* would continue to lack at least the two limitations discussed above.

Claims 19-27 all depend on claim 18 and are therefore allowable for at least the same reasons discussed above in connection with claim 18.

Claim 38 and its progeny, claims 39-48, have limitations similar to those of corresponding method claims 18-27 and are therefore allowable for at least the same reasons.

Section 103 rejection of claim 28

Bass fails to teach or suggest an integration hub as recited in claim 28.

The Examiner suggests that the integration hub is disclosed in a description of a "publish/subscribe engine" found in col. 8, lines 36-65. This passage describes how a channel

adapter **14, 15** works. It appears therefore that the Examiner regards each channel adapter **14, 15** in *Bass* as an "integration hub."

The Examiner also suggests that the claimed "plurality of transformer classes" is met by the pair of channel adapters **14, 15**.

This correspondence results in two logical dilemmas. First, there is the "chicken or the egg" problem that arises because the integration hub would somehow have to carry the instructions that define itself. Second, there is the potential conflict that arises because each channel adapter would carry instructions that define not only itself but the other channel adapter.

We first discuss the "chicken or the egg" logical dilemma.

Suppose that, as the Examiner suggests, the channel adapter **14** is indeed an integration hub, and that channel adapters **14, 15** form a plurality of transformer classes. Then, claim 28 would require that the integration hub (i.e. channel adapter **14**) include "a computer readable medium on which is encoded instructions for causing a computer to define... a plurality of transformer classes (i.e. channel adapters **14, 15**)."

This would mean that the *Bass* channel adapter **14** somehow manages to carry the instructions for defining itself. It is not clear where *Bass* teaches this, or indeed, if it is even logically possible.

Having discussed the "chicken or the egg" problem, we now address the potential conflict arising because each *Bass* "integration hub" (i.e. channel adapter **14, 15**) would need to carry instructions to define not only itself but the other hub.

Because FIG. 1 is completely symmetric, nothing in the Examiner's reasoning prevents either or both channel adapters **14, 15** from being regarded as an "integration hub." The two channel adapters **14, 15** should be completely interchangeable.

With this being the case, if channel adapters **14**, **15** are “integration hubs” as recited in claim 28, then it would have to follow, from claim 28, that channel adapter **14** has instructions for defining channel adapter **14** and that channel adapter **15** has instructions for defining channel adapter **15**. But it would also follow, from claim 28, that channel adapter **14** has additional instructions for defining channel adapter **15**, and conversely, that channel adapter **15** has additional instructions for defining channel adapter **14**.

The end result of all this is that the instructions for defining channel adapter **15** would have to be in two places at once: at channel adapter **15** itself, and also at channel adapter **14**. Similarly, the instructions for defining channel adapter **14** would also be in two places at once, namely at channel adapter **14** itself, and also at channel adapter **15**.

It is unclear where *Bass* teaches that the channel adapters **14**, **15** each carry the instructions for defining the other channel adapter **15**, **14**. In fact, it is unclear how this would even make logical sense.

These and other logical difficulties arise only because the proposed correspondence between *Bass* and the claim is contrived. As a result, the proposed correspondence cannot withstand even a cursory logical analysis. Accordingly, Applicant requests that the Examiner reconsider and perhaps withdraw the rejection.

Claim Preambles

The preambles of each claim refer to the exchange of information among *applications*. *Bass*, on the other hand, is directed to the exchange of information among different systems. For example, *Bass* states that “[T]he inventive channel adapters permit dissimilar systems to communicate with each other.”

Applicant recognizes that the preamble is not entitled to patentable weight "where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone."¹¹

However, this is not the case for the present claims. For each claim, the body of that claim specifically refers to the "applications" in the preamble of that claim. Hence, the process steps cannot be said to stand apart from the preamble. Accordingly, the preamble is entitled to patentable weight.

Summary

Now pending in this application are claims 1-48, of which claims 1, 18, 28, and 38 are independent. No fees are believed to be due in connection with the filing of this response. However, to the extent fees are due, or if a refund is forthcoming, please adjust our deposit account referencing attorney docket "12587-008001."

Respectfully submitted,

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¹¹ *In re Hiraio*, 535 F.23 67 (CCPA 1976).